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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/023,207

12/13/2001

Darryl Franklin Clark

KCC-15,966

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01/29/2004

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EXAMINER

YAO, SAMCHUAN CUA

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/023,207 | Applicant(s) CLARK ET AL. | |
| | Examiner Sam Chuan C. Yao | Art Unit 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-22, drawn to a method of making an absorbent non-woven web, classified in class 156, subclass 167.
 - II. Claims 23-26, drawn to an absorbent nonwoven web, classified in class 442, subclass 327.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process, such as forming a nonwoven multi-components filamentary web and then welding absorbent particles onto and into the web.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Roland Norris on 08-11-03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 23-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Another call was made for Mr. Norris to elect between various species. However, it did not result in election being made. In any event, such is moot since the requirement for Applicant to elect species is being withdrawn, after reading WO 00/29658. The disclosure of WO '658 would appear to suggest that various species are obvious variant over each other.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite, because it is unclear what is taken to be a sheath of a multicomponent filament when the filament is a side-by-side multicomponent filament. For the purpose of examining this limitation, the recited sheath is taken to be a lower melting component (i.e. binder) of a multi-component filament.

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Claim 3 is indefinite, because the limitation "*the activated and densified web*" does not have a positive antecedent basis. For the purpose of examining this claim, this claim is assumed to be dependent on claim 2 instead of claim 1.

Claim 7 is indefinite, because it is unclear which component's melting point of a multi-component spunbond filament is being compared with the melt point of melt-blown filament. Does this claim require having the melting point of a melt-blown filament to be lower than all components of a multi-component spunbond filament.

Claim 8 is indefinite, because it is unclear which component's melting point of a multi-component spunbond filament is being compared with the melt point of melt-blown filament. Does this claim require having the melting point of a melt-blown filament to be greater than all components of a multi-component spunbond filament.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 4-6, 9-12, and 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/29658.

WO '658 discloses a process of making absorbent non-woven web, the process comprises:

- a) forming bi-component filaments by extruding an array of molten thermoplastic filaments into an air-stream;
- b) combining/commingling super-absorbent articles and/or pulp fibers with the bi-component filaments in the air-stream
- c) cooling the filaments;
- d) collecting the filaments and commingled super-absorbent particles and/or pulp fibers onto a forming conveyor to form a fibrous web;
- e) passing the web through a through-air bonding operation to improve bonding of the particulate materials in the web; wherein the air is *"sufficiently hot to melt one of the polymers of which the fibers of the web"* at a dwell time as long as 6 seconds (page 3 last paragraph to page 4 1st full paragraph; page 5 last paragraph to page 6 paragraph 4; page 8 full paragraph 1; page 11 full paragraph 3; page 14 full paragraphs 1-3 (especially last paragraph); page 15 lines 1-3 and last two lines; page 16 lines 1-6).

Although not expressly disclosed, melted components of bi-component filaments would naturally flow around the particulate materials in the web, thereby, wetting a majority of the super-absorbent particles and/or pulp fibers.

With respect to claim 4, see page 8 full paragraphs 1-2.

With respect to claim 5, page 3 last two lines to page 4 line 9; page 15 last two paragraphs to page 16 line 6.

With respect to claim 6, page 11 full paragraphs 2-3.

With respect to claim 9, see the incorporated cited patents on page 5 and on page 10 full paragraph 1.

With respect to claim 10, see page 12.

With respect to claim 11, see page 8 lines 1-6.

With respect to claim 12, see page 3 full paragraph 4.

With respect to claim 15, see page 9 full paragraph 2.

With respect to claims 16-18, see page 7 full paragraph 1.

With respect to claim 19-21, see page 20, claims 19-21.

With respect to claim 22, see page 6 full paragraph 4.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/29658 as applied to claim 5 or 6 above.

With respect to claims 7-8, WO '658 teaches forming a mixture of bicomponent spunbond filaments and bicomponent melt-blown filaments; accordingly, the spunbond filaments are used to impart greater strength, while the melt-blown filaments are used to capture and entangle pulp fibers/superabsorbent particles. In another embodiment, WO '658 further teaches using a mixture of bicomponent

spunbond filaments and melt-blown filaments (need not be bicomponent); wherein the melt-blown filaments are used as a binder material, which has "a relatively low melting point" (page 11 last two full paragraphs). Therefore, depending on the desired end-use of the melt-blown filaments, it would have been obvious in the art in the art to either use a relatively high melting point melt-blown filaments (for use in capturing and entangling absorbent materials) or use a relatively low melting point melt-blown filaments (for use as a binder material).

12. Claims 2-3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/29658 as applied to claim 1 above, and further in view of Jackson et al (US 5,350,370).

It would have been obvious in the art to densify a fibrous web taught by WO '658 at a pressure, temperature and time to obtain a 0.1-0.3 g/cc density web, because Jackson et al discloses a desirability of heat-pressing a fibrous absorbent web for a sufficient time to activate binder fibers in the web, thereby bonding and compacting the web to a density of 0.1-0.5 g/cc (abstract; col. 7 line 27 to col. 8 line 38).

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/29658 as applied to claim 1 above, and further in view of Haynes et al (US 6,019,152).


It would have been obvious in the art to subject a fibrous web on a forming wire with a forced air heater, as such is conventional in the art in order to enhance the structural integrity of a non-woven web as exemplified in the teachings of Haynes et al (col. 2 lines 19-52; figure 8)

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
01-24-04